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Claims

[c1] 1. An organic electro-luminescent device, comprising:
a first substrate having a first electrode layer and an organic functional layer sequentially disposed thereon;
a second substrate having a second electrode layer disposed thereon; and
a conductive layer disposed between the organic functional layer and the second electrode layer, wherein the second electrode layer is electrically connected to the organic functional layer through the conductive layer.

[c2] 2. The organic electro-luminescent device of claim 1, wherein the first substrate is a substrate with an array of active devices thereon, the first electrode layer comprises a plurality of pixel electrodes and the second electrode layer serves as a common electrode.

[c3] 3. The organic electro-luminescent device of claim 1, wherein the first electrode layer comprises a plurality of parallel-aligned first stripe electrodes and the second electrode layer comprises a plurality of parallel-aligned second stripe electrodes such that the first stripe electrodes extend in a direction perpendicular to the second stripe electrodes.

[c4] 4. The organic electro-luminescent device of claim 1, wherein the conductive layer comprises an anisotropic conductive film.

[c5] 5. The organic electro-luminescent device of claim 1, wherein the first electrode layer comprises transparent conductive material.

[c6] 6. The organic electro-luminescent device of claim 5, wherein the transparent conductive material is indium tin oxide, indium zinc oxide, aluminum zinc oxide, antimony tin oxide, zinc oxide, indium oxide or tin oxide.

[c7] 7. The organic electro-luminescent device of claim 1, wherein the second electrode layer comprises transparent conductive material.

[c8] 8. The organic electro-luminescent device of claim 7, wherein the transparent conductive material is indium tin oxide, indium zinc oxide, aluminum zinc oxide, antimony tin oxide, zinc oxide, indium oxide or tin oxide.

[c9] 9. The organic electro-luminescent device of claim 1, wherein the device further comprises a low work function material layer disposed over the organic functional layer.

[c10] 10. The organic electro-luminescent device of claim 1,

wherein the material layer is calcium, magnesium-silver alloy, aluminum-lithium alloy or lithium fluoride/aluminum composite metal.

[c11] 11. A method of fabricating an organic electro-luminescent device, comprising the steps of:
providing a first substrate;
forming a first electrode layer and an organic function layer in sequence over the first substrate;
providing a second substrate;
forming a second electrode layer over the second substrate; and
adhering the second substrate and the first substrate together so that the second electrode layer is electrically connected to the organic functional layer.

[c12] 12. The method of claim 11, wherein the step of adhering the first substrate and the second substrate together comprises:
providing a conductive layer between the second electrode layer and the organic functional layer; and
electrically connecting the second electrode layer and the organic functional layer through the conductive layer.

[c13] 13. The method of claim 11, wherein the step of forming the second electrode layer over the substrate comprises performing a chemical vapor deposition process or a

physical vapor deposition process.

[c14] 14. The method of claim 11, wherein the organic functional layer comprises a high molecular weight compound material.

[c15] 15. The method of claim 14, wherein the step of forming the high molecular weight compound material comprises dip coating, ink jet or spin coating.

[c16] 16. The method of claim 11, wherein the organic functional layer comprises a low molecular weight compound material.

[c17] 17. The method of claim 16, wherein the step of forming the low molecular weight compound material comprises evaporation, plasma polymerization, dip coating or spin coating.

[c18] 18. The method of claim 11, wherein after forming a first electrode layer and an organic function layer in sequence over the first substrate, further comprises forming a low work function material layer over the organic functional layer.